

AMENDMENTS TO THE CLAIMS:

The listing of claims provided herein shall replace all prior versions and listings of the pending claims:

Listing of Claims:

Claims 1-20 (canceled)

21. (presently amended) A motor vehicle electrical power system for powering an electrical load external to the vehicle, comprising:

an internal combustion engine;

a battery;

an electric generator coupled to said internal combustion engine for generating AC electrical power when said internal combustion engine is running;

a generator inverter disposed between said electric generator and said battery for converting the AC electrical power generated by said electric generator to DC electrical power for storage in said battery;

an electric traction motor coupled to said battery;

a traction inverter coupled to said battery for converting the stored DC electrical power to an AC power input for said electric traction motor;

a switching device disposed between said traction inverter and said electric traction motor for selectively diverting the AC electrical power input for application to the external electrical load;

means for powering the external electrical load only if a safety condition is satisfied; and

~~control~~ means for prohibiting movement of the vehicle when powering the external electrical load.

22. (previously presented) The system according to claim 21, wherein said switching device comprises a contactor.

23. (previously presented) The system according to claim 21, further comprising:

a filter coupled to said switching device for minimizing noise in the diverted AC power input; and

a transformer coupled between said filter and the external electrical load.

24. (previously presented) The system according to claim 21, further comprising:

a DC-to-DC converter coupled between said first electric machine and said first inverter for generating lower voltage DC electrical power from the DC electrical power produced by said first inverter;

an inverter coupled to said DC-to-DC inverter for converting the lower voltage DC electrical power to an AC power output for application to the external electrical load.

25. (presently amended) The system according to claim 24, further comprising a second filter for minimizing noise in the AC power output.

26. (presently amended) The system according to claim 24, wherein:

said DC-to-DC converter is a two-way DC-to-DC converter;

said inverter comprises a rectifier, and

said system is operable in a charger mode..

27. (presently amended) The system according to claim 26, further comprising means for selecting operation of said system in a generator mode versus the charger mode.

2928. (presently amended) A motor vehicle electrical power generating system for powering an electrical load external to the vehicle, comprising:

an internal combustion engine;

a battery;

an electric generator coupled to said internal combustion engine for generating AC electrical power when said internal combustion engine is running;

a generator inverter disposed between said electric generator and said battery for converting the AC electrical power generated by said electric generator to DC electrical power;

a DC-to-DC converter coupled between said electric generator and said generator inverter for generating lower voltage DC electrical power from the DC electrical power produced by said generator inverter;

an inverter coupled to said DC-to-DC converter for converting the lower voltage DC electrical power to an AC power output to power the external electrical load;

means for powering the external electrical load only if a safety condition is satisfied; and

~~control~~ means for prohibiting movement of the vehicle when powering the external electrical load.

3029. (presently amended) The system according to claim 2928, further comprising a second filter for minimizing noise in the AC power output.

3130. (presently amended) The system according to claim 2928, wherein:

said DC-to-DC converter is a two-way DC-to-DC converter;

said inverter comprises a rectifier; and

said system is operable in a charger mode.

3231. (presently amended) The system according to claim 3130, further comprising means for selecting operation of said system in a generator mode versus the charger mode.

3332. (presently amended) The system according to claim 21, wherein said control means inhibits operation of said system based on one or more of a gear selector position, door open/shut condition and parking brake condition.

3433. (presently amended) The system according to claim 2928, wherein said control means inhibits operation of said system based on one or more of a gear selector position, door open/shut condition and parking brake condition.

3534. (presently amended) A method for operating a hybrid electric vehicle having a battery, inverter and at least one electric motor, the method comprising:

applying DC electrical power stored in the battery to the inverter to generate AC electrical power for the motor;

diverting the AC electrical power to an external load so as to operate the vehicle in a generator mode;

operating the vehicle in the generator mode only if a safety condition is satisfied; and

prohibiting movement of the vehicle when operating the vehicle in the generator mode.

3635. (presently amended) The method according to claim 3534, ~~further comprising~~ wherein said operating step comprises the step of inhibiting generator mode operation based on a gear selector position of the vehicle.

3736. (presently amended) The method according to claim 3534, wherein said operating step comprises ~~further comprising~~

the step of inhibiting generator mode operation based on a door open/shut condition of the vehicle.

3837. (presently amended) The method according to claim 3534, wherein said operating step comprises further comprising the step of inhibiting generator mode operation based on a parking brake condition of the vehicle.

3938. (presently amended) A method for operating a hybrid electric vehicle having a battery, DC-to-DC converter, at least one electric generator coupled to an internal combustion engine, and a generator inverter the method comprising:

operating the internal combustion engine to generate AC electrical power from the generator;

applying the generated AC electrical power to the generator inverter in order to generate DC electrical power;

applying the DC electrical power to the DC-to-DC converter to generate a lower voltage DC electrical power;

inverting the lower voltage DC electrical power to a generate an AC power output for an external load, thereby operating the vehicle in a generator mode;

operating the vehicle in the generator mode only if a safety condition is satisfied; and

prohibiting movement of the vehicle when operating the vehicle in the generator mode.

4039. (presently amended) The method according to claim 3938, wherein said operating step comprises further comprising the step of inhibiting generator mode operation based on a gear selector position of the vehicle.

4140. (presently amended) The method according to claim 3938, wherein said operating step comprises further comprising the step of inhibiting generator mode operation based on a door open/shut condition of the vehicle.

SERIAL NO. 09/659,018
ATTORNEY DOCKET NO. 199-1538

4241. (presently amended) The method according to claim 3938, wherein said operating step comprises ~~further comprising~~ the step of inhibiting generator mode operation based on a parking brake condition of the vehicle.

4342. (presently amended) The method according to claim 3938, wherein the DC-to-DC converter is bidirectional and wherein the method further comprises the step of operating the vehicle in a charging mode.